

A STUDY OF THE EFFECTIVENESS OF THE METHOD
OF GROUP INVOLVEMENT IN THE
TEACHING OF SAFETY

BY

HARRIS WILLIAM DEAN

Ed. B., Illinois State Normal University, 1929

A. M., State University of Iowa, 1936

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H. W. D.



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The subject of this study is an experiment in group involvement which was undertaken in the Rantoul Township High School of Rantoul, Illinois. This is a four year unit including grades nine through twelve and enrolling approximately three hundred fifty pupils of both sexes. The school follows the usual pattern of secondary schools in this region. Subject offerings are of the usual college preparatory, academic type, or of the vocational type. The classes are primarily text book and subject matter centered.

The school draws its population from the town of Rantoul and the surrounding farming community. Within this area resides a considerable number of families of the personnel of Chanute Field, a large army air base. There are few extremes in socio-economic status and the population probably should be classified as normal or average for this region.

This study had as its aim the comparison of the results of two methods of teaching under "controlled" conditions. One of the methods the author has chosen to call *group involvement*. The other may be described as non-group involvement for lack of a better short description.

The specific problem was to determine the relative effectiveness of the method of group involvement in producing changes in behavior habits relating to safety practices. Answers to these questions were sought.

1. Does the teaching of safety by the method of group involvement result in a greater increase in the practice of specific safety habits than teaching by a non-group involvement method?
2. Does the teaching of safety by the method group involvement result in a greater knowledge of correct

safety practices than teaching by a non-group involvement method?

3. Does the teaching of safety by the method of group involvement result in a greater safety consciousness than teaching by a non-group involvement method?

The key to the understanding of the type of experiment with which this study is concerned is the understanding of what is meant by group involvement. By group involvement, as used in this experiment, is meant that kind of group activity in which the members tend to exert mutual influence as they proceed toward the realization of mutually understood and mutually recognized goals. It implies collaboration in the formation of the purpose for the total activity. It involves mutual stimulation and perception of the implications of developing sub-problems. It involves mutual development of possible solutions, and consensus in the selection of a solution to the problem. A vital act in group involvement in arriving at a mutual solution to a problem is a group decision as to the course of action to be taken by each member of the group.

The method of non-group involvement is one in which a group, in the sense of a plural number of persons, is taught with the intent to deny mutual participation. The relationship is primarily a two-way relationship between the pupil and the teacher. There is no group development of purpose, subject matter, conclusions, or action to be taken. Class discussion consists of questions by the teacher and answers by the pupils but no inter-pupil exchanges. The subject matter is given to the group as material to be learned and to be examined upon. Understanding is promoted by teacher explanation and questioning. The factor of inter-personal relationship is to be held as inoperative as is possible in such a situation.

Pupils of the ninth grade were selected for this experiment. After a preliminary talk with the class of about one hundred and twenty pupils in which the proposed course

was explained about sixty of them indicated a desire to be enrolled.

Since the method of the experiment was to be that of matched pairs taught in two separate classes, a series of tests and questionnaires was administered to determine the pairings. The pupils were matched or equated on the following:

1. Chronological age.
2. Mental age.
3. Sex.
4. Grade.
5. Socio-economic status.
6. Type of home.
7. School adjustment.
8. Inter-personal structure of the groups.

Two types of evaluation procedures were used in this study of group involvement. One of them consisted of standard tests and evaluation techniques. Included in this type of evaluation were the following:

1. National Safe Drivers Test.
2. Home Safety Test for High School Students and Adults.
3. General Safety Education Test for Junior High School Pupils.
4. The Bell School Inventory.
5. Sociometric test of inter-personal relations.

The other type of evaluation procedures included the following:

1. Classroom Data Sheet (a self-evaluation sheet for reporting the pupil's own actions and observations).
2. Home Safety Sheet (a cooperative self-evaluation and parent-evaluation sheet for reporting the pupil's actions and observations).
3. Pupil observation checklist (a checklist for reporting on the pupil under observation from the other class).
4. Reports of consciousness of violation of safety practices in pre-arranged dangerous situations to which the

pupils were exposed (set-ups).

5. Questionnaire administered to the pupils before the groups were selected.
 6. Questionnaire administered to the pupils at the end of the teaching period.
 7. Questionnaire administered to judges for the purpose of evaluation of the home conditions of the pupils.
- A. Gains were recorded by the involvement group which were significantly greater than those made by the non-involvement group on the following:
1. General Safety Education Test.
 2. General Safety Education Test (selected items).
 3. Home Data Sheet (observation).
 4. Pupil Data Sheet (quantity of observations made).
 5. Classroom Data Sheet (observations).
 6. "Set Ups" (observations).
- B. A greater number of group involvement pairs showed gains on the following:
1. General Safety Education Test.
 2. General Safety Education Tests (selected items).
 3. National Safe Drivers Test.
 4. "Set Ups."
 5. Home Data Sheet.
 6. Classroom Data Sheet.
 7. Pupil Data Sheet (on own behavior).
 8. Pupil Data Sheet (on observations made).
- C. The following tests showed statistically inconclusive results both by group analysis and pair analysis:
1. Home Safety Test.
 2. Home Safety Test (selected items).
 3. Bell School Inventory.
- D. The following test showed statistically inconclusive results by group analysis:
1. National Safe Drivers Test.
 2. Pupil Data Sheet (on own behavior).

The questionnaire at the end of the teaching period indicated little difference in the two groups on the questions asked. The observations by the pupils both on the questionnaire and the Bell School Inventory indicate a greater willingness to comment and a greater freedom of expression on the part of the members of the involvement group. Both groups indicated a general satisfaction with their own class work.

The involvement group members showed a greater interest and enthusiasm for their work as revealed by the school records and the leader's impressions than did the non-involvement group.

The non-involvement group members demonstrated an apathetic, listless attitude toward the class as shown by the school records and the leader's impressions.

In general the involvement group showed greater interest and enthusiasm, produced better results on tests and observations, and displayed a better attitude toward their work and their fellows than did the non-involvement class.

CONCLUSIONS

Within the limits imposed by the nature of the groups under study and the methods employed the following conclusions may be drawn:

- A. Teaching safety by a method of group involvement, in which the members of the group have cooperatively set their purposes, developed their own problems, sought and discovered their own solutions to those problems and have by group decision set goals for action in the light of their learnings, tends to produce the following results:
1. Develops as much knowledge of correct safety practices, and in some cases more than does a method of non-involvement.
 2. Develops greater safety consciousness than does a method of non-involvement.

3. Develops safer behavior in a very limited area. (Limited by the nature of the study.)
 4. Leads to longer retention of a knowledge of safety practices than does the method of non-involvement.
 5. Develops and maintains greater enthusiasm for the work at hand than does a method of non-involvement.
 6. Develops more self-control and self-discipline on the part of its members than does a method of non-involvement.
- B. The following observations are offered in light of the evidence of this experiment, and of the experimenter's reading and experience:
1. It cannot be expected that desirable changes in safety habits and attitudes will necessarily result from a study of safety materials and correct practices as subjects to be mastered.
 2. A group development of dangerous areas, incorrect safety practices, and the step to be taken to correct them, combined with a daily or weekly check upon these areas and practices, shows excellent possibilities for producing desired behavior changes in the particular areas studied.
 3. The greater the group cooperation, community cooperation and home cooperation, the greater seem the chances of success in the attempt to develop safety consciousness and correct safety habits in the pupils concerned.
 4. It seems definitely worthwhile to use the "set ups" as a teaching device as well as a frequent check on pupil progress toward safety consciousness. This is just another example of the use of reality practice in education.

VITA

Harris William Dean was born March 4, 1909, at Sparta, Indiana. His parents moved to McLean County, Illinois, in 1913. He attended the public schools in McLean County, Illinois. In 1925 he entered the Illinois State Normal University where he was graduated with the degree of Bachelor of Education in 1929. In the summer of 1935 he entered the State University of Iowa from which institution he received the degree of Master of Arts in 1936. In the summer of 1941 he entered the University of Illinois. In April, 1942, he enlisted in the Navy and was honorably separated from active duty in January, 1946. He returned to the University of Illinois and received the degree of Master of Education in 1946. Since that time he has done additional graduate work at the University of Illinois.

During the school years of 1929 to 1934 he taught in the Alvin Township High School, Alvin, Illinois. He taught in the Lexington Community High School from 1934 to 1936. He was principal of the Heyworth Community High School during the years 1936 to 1939. In 1939 he became superintendent of the public schools in Lexington, Illinois, which position he held until entering the Navy. He returned from the Navy in 1946 to the University of Illinois where he was a graduate assistant in Education during the year 1946. During the spring semester of the academic year 1946-47 he served as Instructor in the College of Education.

